

ABSTRACT OF THE DISCLOSURE

An A/F signal proportional to an oxygen concentration in the exhaust gas from an internal combustion engine is output upon application of a voltage based on an instruction from a microcomputer. At the time an element resistance is detected, a bias instruction signal Vr from the microcomputer is converted by a D/A converter 21 to an analog signal Vb. An output voltage Vc obtained by removing high frequency components from the analog signal Vb through an LPF 22 is input to a bias control circuit 40. During this time period in which the element resistance is detected, an accurate A/F signal is not output. Therefore, the A/F signal that has theretofore prevailed is held by a Sample/Hold circuit 70 to thereby prevent the use of an erroneous A/F signal. Namely, at the time of detecting the element resistance, the detected value of the oxygen concentration is prevented from becoming abnormal. As a result, an accurate A/F control can be executed using the detected element resistance.